



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,745	08/25/2006	Holger Hansen	AFG 16920-WO-US	1192
30/996 7590 09/16/2009 ROBERT W. BECKER & ASSOCIATES 707 HIGHWAY 333 SUITE B TIJERAS, NM 87059-7507				
EXAMINER BONZELL, PHILIP J				
ART UNIT		PAPER NUMBER		
3644				
MAIL DATE		DELIVERY MODE		
09/16/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,745

Applicant(s)

HANSEN, HOLGER

Examiner

PHILIP J. BONZELL

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "double-rowed back-to-back arrangement of two seats" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 32 recites the limitation "said intersecting support straps and said further support straps" in the last line. There is insufficient antecedent basis for this limitation in the claim.
3. Claims 25-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. For Claims 25 and 35, both claims are indefinite as the amount structure and functional language that is jumbled together makes it unclear as to what is actually being claimed. For example in claim 25, "a pattern of seats" is used but it is unclear if that has to do with the row of seats or some pattern of the framework. Another example in claim 35, the vertical support straps are laterally positions along the seat pan but it is not clear if they are secured to it, if not how is it supporting the seat pan. The Examiner is requiring that the Applicant reorder and align the claims so that the follow 37 CFR 1.75(i), which states "Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation."
 - b. For Claim 35, it is unclear and therefore indefinite as to whether the seat pan is part of the seat or if it is a separate item as they are not claimed together.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25, 26, and 28-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143).

c. For Claim 25, Reilly '143 discloses the combination of an aircraft (air vehicle) having a transport compartment for seats mounted to the vehicle for conveying personnel. This seat is deemed to be in a central row of the transport compartment (i.e. in the transport compartment, central being within the compartment and at least some distance from a fuselage wall). Mesh frameworks composed of textile straps (i.e. crisscrossing straps made of textile 21, 42, 47, etc.) are suspended within a pattern of the seating arrangement between the roof and floor surfaces of the transport compartment (i.e. the straps are within the transport compartment and located between the roof and floor) and oppositely disposed side walls that extend in the direction of movement of the vehicle (i.e. the straps are within the transport compartment, between the fuselage walls, which, inherently, as fuselage walls are constructed, extend along the direction of movement of the vehicle), wherein the seat is individually secured to an associated one of said mesh frameworks (Figure 1) which is in turn

secured, under tension (i.e. weight of the components induces tension), to support elements of the vehicle (i.e. the apparatus is inherently mounted to within the vehicle to some support elements), wherein the mesh framework is comprised of two transverse straps (47 or 42, having components in the direction transverse to the movement of the airplane) and two vertical straps (21, having components in the vertical direction), wherein said transverse straps are spaced from one another by the width of the seat (Figure 1) and are suspended between said side walls in the vicinity of the roof surface (i.e. by being in the seating area, they are deemed to be within the vicinity of all components of the aircraft, including the roof surface, and being within the compartment, are deemed to be between the side walls), wherein said vertical straps are spaced from one another by the width of the seat (Figure 1) and are suspended between the roof surface and the floor surface (i.e. the straps are within the seating compartment and therefore are located between the roof and floor, and wherein the transverse straps and vertical straps are interconnected at points where they intersect one another (i.e. they are interconnected at the intersection of the seat 39, which is the intersection of the straps, as well as the intersection point seen between 42 and 21 in Figure 4).

d. Reilly '143 does not expressly disclose a row of these seats disposed next to one another in a longitudinal axis, however, Reilly does teach the seat as "side-facing" (Abstract, line 1) and as it is old and well known to features multiple seats in an aircraft. It would have been obvious to one having ordinary skill in the

art at the time the invention was made, to comprise a plurality of seats in a row, as it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. See also, MPEP § 2144.05 which states: *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

e. For Claims 26 and 33, Reilly does not expressly disclose a double-rowed back-to-back arrangement of two seats or two mesh frameworks. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to feature this configuration, as it is old and well known that rows of seats can be placed back-to-back and therefore in a configuration that would place them in two or more rows, for the purpose of efficient use of space within the aircraft. This would mean that the mesh framework would include a doubled arrangement of the vertical straps (i.e. one arrangement for each seat) such that each of the two seats has associated therewith its own vertical straps that are connected to unitary ones of said transverse straps (i.e. connected to the transverse straps by way of the seats and the intersection point and as described above in the rejection of Claim 25). Specifically regarding Claim 33, the arrangement made obvious by the rejection of Claim 26 provides two mesh frameworks next to one another in the longitudinal axis of the aircraft. The mesh frameworks are respectively connected to a vertical strap (i.e. each framework has connection to vertical strap 57).

- f. For Claim 28, Reilly '143 discloses the vertical straps and transverse straps are sewn together at their points of intersection (i.e. transverse straps 42 and vertical straps 21 are sewn together, as seen in Figure 4).
- g. For Claim 29, in order to connect the vertical and transverse straps at their points of intersection (namely, at the point of intersection that is the seat), eyelets are disposed in one of the straps (i.e. buckle 45 is disposed in strap 47) to which the respectively other strap is connected via detachable connection means (i.e. the transverse strap 47 is connected to the vertical strap 21 via the seat and buckle/eyelet 45, which is inherently detachable/capable of being detached).
- h. For Claim 30, Reilly '143 discloses a support structure of textile straps (22) which is held in place by the vertical straps (i.e. through the connection as seen in Figure 4 with strap 42 and strap 21), is disposed between two vertical straps that are suspended at a seat width apart (i.e. between straps 56 and 57, which are suspended at a seat width apart in Figure 1, and the planes of straps 56 and 57 are outside of the support structure of straps 22, such that straps 22 are between these straps 56 and 57).
- i. For Claim 31, Reilly '143 discloses the support structure (straps 22) is comprised of two intersecting support straps (i.e. the two straps are intersecting with other straps in the mesh framework, namely the vertical straps 21) suspended in a plane of the vertical straps (Figures 1 and 4), and two further support straps that extend between the vertical straps (i.e. straps 40, supporting the seat occupant, and extending between the two vertical straps as seen in

Figure 1), and wherein ends of the intersecting support straps (22) and further support straps (40) are respectively connected to the vertical straps (i.e. the straps 22 are directly connected to straps 21 in the junction seen in Figure 1, and the straps 40 are connected to the vertical straps by way of connection to the entire mesh framework).

j. For Claim 32, Reilly '143 discloses a strap-tensioning mechanism is disposed in the support structure (i.e. the buckle between straps 40 is inherently a strap-tensioning mechanism, Figure 1).

k. For Claim 34, Reilly '143 discloses a seat (39) is provided that is capable of being secured to the vehicle via holding straps disposed above and below the seat (i.e. all of the straps in the mesh framework) and wherein the holding straps belonging to the seat are partially anchored to the mesh framework (i.e. by being part of the mesh framework) and partially anchored to the vehicle (i.e. through connections to the surrounding structure).

l. For Claim 35, Reilly '143 discloses a seat (39) is provided that is to be secured to the vertical straps of the mesh framework (Figures 1 and 4) and that has a safety harness for securing an occupant of the seat (41), wherein to support a seat pan that is embodied as a component that is resistant to pressure (i.e. it can handle a person sitting in the seat pan 39), lateral support straps bordering the seat pan (i.e. the straps 22 as part of the mesh framework) are secured to said vertical straps (21), wherein when the seat pan is in a sitting position (Figures 1 and 4) a portion of the lateral support strap extends from a

lower securement location (i.e. one end of the straps) with the vertical straps (i.e. where the vertical strap meets the lateral support strap in Figure 1) along side edges of the seat pan (i.e. near the side edges of the seat pan) to front corners of the seat pan (i.e. near corners of the seat pan, any corners capable of being deemed "front"), and from there, inclined relative to a vertical axis (i.e. the straps 22 are inclined), is guided back to said vertical straps (i.e. connected to the vertical straps or guided back via the seat pan itself) and is secured to an upper securement location (i.e. connected at the other strap end) and the seat pan is capable of being folded or pivoted (i.e. it is made of a foldable material).

m. For Claim 36, Reilly '143 discloses the rear end of the seat pan extends between the vertical straps (i.e. it is between the straps 21 as seen in Figure 1) and is capable of being guided between the straps during a pivoting movement.

n. Regarding Claim 37, Reilly '143 discloses a control element (27) connected to the rear end of the seat pan (39), wherein the control element (27) is guided over a guide member (29) located in the roof surface of the vehicle, wherein the control element (27) has a handle means supported on the roof surface of the vehicle.

o. For Claim 38, Reilly '143 discloses the seat pan has a tubular frame (50) and a textile seating surface (i.e. sling, 39 and fabric sling 37, Column 3, lines 31-42).

- p. For Claim 39, Reilly '143 discloses the lateral support straps are affixed to the seat pan at the front corners (i.e. the straps 22 are affixed to 39 as seen in Figure 1 near the front corners).
- q. For Claim 40, Reilly '143 discloses the lateral support straps (22) are one-piece belt straps.
5. Claims 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent 3,868,143) in view of Hansen et al (GB 2,276,080). While Reilly '143 is silent about a strap-tensioning mechanism in the mesh framework, Hansen '080 teaches a strap-tensioning mechanism (i.e. self-tightening device 21) in a mesh framework seat which ensures that there is no slack (page 7, lines 30-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Reilly '173 with the strap tensioner of Hansen '080 in order to prevent the straps from being loose and unstable by not having slack.
6. Claims 41, 42, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent #3868143) in view of Keating (U.S. Patent #2829702).
- r. For Claim 41, while Reilly '143 is silent about a separate textile head support. Keating '702 teaches a textile head support (head straps 31, 32) suspended in a plane of a back support (45) between vertical straps (22) wherein the head support is adjoined by lateral support surfaces (i.e. the support curves

around the head area perpendicular to the plane of the back support) disposed above lateral support straps (30) and wherein the lateral support surfaces are connected at front free ends to a support strap (13) that is at an incline and extends from the roof to the floor. Keating '702 teaches the head support for the purpose of providing enhanced support for the seat occupant's head. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Reilly '143 with the head support straps of Keating '702 in order to provide a well-known and proven structure of head support using textile materials.

s. For Claim 42, neither Reilly '143 nor Keating '702 expressly discloses the head support being made of a partially transparent textile material. However, Keating '702 does teach the seat being made of a net/webbing (i.e. resilient net 45) which is partially transparent it is deemed that the upper part of the webbing is part of the textile head support. It would have been obvious to one having ordinary skill in the art to try using a transparent material as part of the head support for the purpose of providing capabilities for the seat occupant to see beyond the confines of the head support.

t. For Claim 44, Keating '702 teaches an additional textile matting secured to the vertical straps between the back support and the head support (i.e. 33 acts an additional textile matting in this location).

u. For Claim 45, Keating '702 does not expressly disclose the collision matting being unitarily formed with the head support. However, for the purpose

of simpler manufacturing from fewer parts, it would have been obvious to one having ordinary skill in the art at the time of the invention to form these similar parts as one unitary structure.

7. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly (U.S. Patent #3868143) in view of Keating (U.S. Patent #2829702) and Hansen (GB 2,276,080). While Reilly '143 and Keating '702 are silent about the support strap having an actuatable detachable tensioning device. However, Hansen '080 teaches a strap-tensioning mechanism (i.e. self-tightening device 21) in a mesh framework seat which ensures that there is no slack (page 7, lines 30-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Reilly '143 and Keating '702 with the tensioning device of Hansen '080 in order to prevent the strap from being loose and unstable by not having slack. This device would inherently be actuatable (i.e. operable) and detachable (i.e. it would be possible to remove the device from the strap).

Response to Arguments

8. Applicant's arguments filed 6/2/2009 have been fully considered but they are not persuasive.

v. With respect to the first argument on page 13 that Reilly '143 could not be installed in a central row because of the additional components, the Examiner respectfully disagrees. Reilly '143 meets all structural limitations for the mounting

of the mesh framework which comprises individual straps and therefore could be mounted anywhere.

w. With respect to the second argument on pages 14-15 that the mesh framework and the seat of the claimed invention are completely separate and the Reilly '143 reference is silent about this, the Examiner respectfully disagrees. Reilly '143 clearly teaches that the seat and the mesh frame work are sewn together and therefore at some point are separate from each other. As the claimed invention is an apparatus claim the order at which the apparatus is assembled does not matter as long as the end result is the claimed structure.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP J. BONZELL whose telephone number is (571)270-3663. The examiner can normally be reached on M-Th 8-5;.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on (571)272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. J. B./
Examiner, Art Unit 3644

/Michael R Mansen/
Supervisory Patent Examiner, Art Unit 3644

pjb